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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,908	04/18/2006	Andreas Ackermann	12850-003	6545
80711 7590 08/28/2008 Brinks Hofer Gilson & Lyon/Ann Arbor 524 South Main Street Suite 200 Ann Arbor, MI 48104				
EXAMINER				
MCGUTHRY BANKS, TIMA MICHELE				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
08/28/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/539,908

Applicant(s)

ACKERMANN ET AL.

Examiner

TIMA M. MCGUTHRY-BANKS

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 is/are allowed.
- 6) ☒ Claim(s) 18-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

Claims 1, 9, 10, 13, 16 and 30 are currently amended, Claims 2-7, 14, 15, 17-29 and 31 are as previously presented, and Claims 8 and 11 are cancelled.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 18, 19, 22-24, 26, 27 and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Breault et al (US 5,407,459).

Breault et al anticipates the claimed invention. Breault et al teaches a process for preparing sintered calcium aluminates that can be used as a protective cover for liquid metals (abstract). The residues are mixed and calcined (column 2, line 67 to column 3, line 2). Regarding Claim 19, the sintered particles can be ground to the desired size (column 3, lines 32-34). Regarding Claim 22, calcium aluminate is formed. Regarding Claims 23 and 24, the ratio of CaO to Al₂O₃ is 1.02 (column 7, lines 38 and 39). Regarding Claim 26, Table 1 shows the auxiliary materials (column 6). Regarding Claim 27, the dross includes MgO. Regarding Claim 29, CaF₂ is responsible for the high reactivity of the dross residue with calcium oxide (lines 39-45). Regarding Claims 30 and 31, the material is used as a protective cover slag (column 3, line 26).

Claims 18-21, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Daussan et al (US 4,440,575).

Daussan et al anticipates the claimed invention. Daussan et al teaches a granular insulation product for the insulation, protection or processing metal baths. Waste is mixed with rice husk and a binder and granulated. The mixture is sintered (column 4, line 54). Regarding Claim 19, the granulation results in pellets of a diameter preferably from 0.5-5 mm (column 3, lines 30 and 31). Regarding Claim 20, the paper pulp gives the pellet a porous structure (column 4, line 23). Regarding Claim 21, paper pulp in aqueous suspension is used (column 3, lines 1-44). Regarding Claims 30 and 31, the product is to be spread on the free surface of a bath of molten metal (Claim 1).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daussan et al .

Daussan et al discloses the invention substantially as claimed as discussed above. The rice husk as is 1 micron to 1 mm, which overlaps that of the claimed invention. In the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art, a *prima facie* case of obviousness exists. See MPEP § 2144.05.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breault et al.

Breault et al discloses the invention substantially as claimed as discussed above. Breault et al teaches sintering to at least 1200 °C (column 6, line 2), which overlaps the claimed range.

In the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art, a *prima facie* case of obviousness exists. See MPEP § 2144.05.

Allowable Subject Matter

Claims 1-17 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Phillips et al, Klatt et al and Breault et al, cited in the prior action do not disclose a granular material that has been made porous, where the porosity is 5-70 volume % as claimed. Phoenix and Jones, both cited in the previous office action, teach porosity, but as described in the applicant's arguments, the porosity is based on the surface, or area, rather than the volume as claimed.

Response to Arguments

The rejections to Claims 1-17 were withdrawn in light of the amendment. Claims 18-31 are addressed in this office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMA M. MCGUTHRY-BANKS whose telephone number is (571)272-2744. The examiner can normally be reached on M-F 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art Unit
1793

/T. M. M./
Examiner, Art Unit 1793
28 August 2008